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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/775,646	02/05/2001	Susumu Takahashi	202447US2	8312

22850 7590 08/09/2005

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EXAMINER	
SINGH, RACHNA	

ART UNIT	PAPER NUMBER
2176	

DATE MAILED: 08/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/775,646	TAKAHASHI ET AL.	
	Examiner	Art Unit	
	Rachna Singh	2176	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 July 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *33-64* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *33-64* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to communications: RCE filed on 07/29/05.

2. Claims 33-64 are pending. Claims 33, 41, 48, 55, and 60 are independent claims.

3. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 07/29/05 has been entered.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 33-34, 41-42, 48-49, 55, and 60 are rejected under 35 U.S.C. 102(e) as being anticipated by Tamaki et al., US 2001/0014836 A1, 8/16/01 (filed 2/12/01, continuation filed 6/19/98).

In reference to claims 33, 41, 48, 55, and 60, Tamaki teaches a production planning system in which a production plan comprises a data storage unit for storing

parts list information providing a list of required parts, a parts stock storage section indicating parts stock information. See abstract and page 6, paragraphs [0117]-[0118]. Tamaki discloses an adjusting means in which superfluous or deficient parts are identified from the parts stock information and parts information and the production planning system including the original parts list is modified accordingly. If there are deficient parts or superfluous parts, the parts list information is adjusted to eliminate the deficient parts as well as superfluous parts. This is equivalent to modifying a structured parts list based on the parts information list. See columns 16-18. The parts list information is generated by the material resource plan unit for calculating the required amount of material resources based on this list. The production system receives production planning information including parts list information from the parts acquisition system. See page 6. The parts acquisition system must receive an indication for retrieval in order to supply the parts list information to the production system. Compare to ***"a structured parts list information storage configured to store structured parts list information on components including a plurality of kinds of parts, and to output the structured parts list information based on input retrieval information; a parts information storage configured to store parts information on a plurality of parts, and to output the parts information corresponding to the structured parts lists information output from the structured parts list information storage"***. Tamaki further teaches an adjusting means in which superfluous or deficient parts are identified from the parts stock information and parts information. Superfluous parts are eliminated as are deficient parts and the production planning system is adjusted

accordingly. See page 6, paragraph [0117]-[0122] and page 18. The parts list information is generated by the material resource plan unit for calculating the required amount of material resources based on this list. The production system receives production planning information including parts list information from the parts acquisition system. See page 6. The updated structural parts list is provided to the production planning system where it is stored in a data storage unit. See page 18, second column. Compare to ***"a parts information list creating and editing device configured to retrieve parts information on respective parts, stored in said structured parts list information storage based on the input retrieval information, and to create a parts information list; and a structured parts information list creating and editing device configured to create an updated structured parts list information based on said parts information list created by said parts information list created by the parts information list creating and editing device, and to store the updated structural parts list information in a memory for subsequent access."***

In reference to claims 34, 42, and 49, Tamaki teaches that the parts information in storage may include information regarding a name of the part, a feature such as quantity consumed, a cost evaluation module, etc. See figures 24-27.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 35-40, 43-47, 50-54, 56-59, and 61-64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamaki et al., US 2001/0014836 A1, 8/16/01 (filed 2/12/01, continuation filed 6/19/98) in view of Tegethoff, US 5,539,652, 7/23/96.

In reference to claims 35-40, Tamaki does not teach a compatibility prediction information output device configured to survey on predetermined items (i.e. packaging density, arrangement, and operation verification) based on parts information list created by parts information list creating/editing device and to create and output decision information for compatibility prediction based on results from said survey. Tegethoff, however, teaches a method for manufacturing test simulation in electronic circuit design. Tegethoff teaches a test simulator that simulates a manufacturing text of boards and multichip modules from design concept to aid the designer in selecting trade-offs in design. The methods models fault probabilities for the circuit design based on the components. Tegethoff further discloses the Manufacturing Test Simulator (MTSIM) which is a concurrent engineering simulation tool for manufacturing test, that is, a tool to predict manufacturing test behavior while a product is still being designed. See column 6. MTSIM uses pareto analysis in which a user can evaluate simulation results to determine faults, test coverage, etc. Pareto analysis can be done at three levels of abstraction including individual components, groups of components with the same part number, and groups of components. All part numbers are assigned a category based on level of integration and functionality. See column 11. Furthermore, Tegethoff teaches that he technology of circuit board assembly is evolving to support density demands of many modern circuit designs. Multi-chip modules and twelve-mil

pitch surface mount technology (SMT) are frequently used to improve circuit density. SMT chip packages with lead counts of over 1000 are not uncommon. New fabrication processes are used to enable higher circuit densities usually have higher defect rates than older low density fabrication technologies. Tegethoff teaches identifying defects in packaging densities. See columns 1-4. It would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate Tegethoff's prediction concerning operation, simulation, etc in a system of Tamaki's structured parts list because early prediction of manufacturing behavior drives design changes which optimize the product's manufacturability and testability, thus improving product quality and reducing cost and utilizing a parts list would help facilitate this prediction. See column 6 of Tegethoff.

Claims 43-47 are rejected under the same rationale used in claims 35, 37, 38, 39, and 40 respectively above.

Claims 50-54 are rejected under the same rationale used in claims 35, 37, 38, 39, and 40 respectively above.

Claims 56-59 are rejected under the same rationale used in claims 35, 37, 38, 39, and 40 respectively above.

Claims 61-64 are rejected under the same rationale used in claims 35, 37, 38, 39, and 40 respectively above.

Response to Arguments

8. Applicant's arguments filed 07/29/05 have been fully considered but they are not persuasive.

With respect to claims 33-64, Applicant argues Tamaki is directed to management of excess and deficiency of parts and not to management that can determine whether a part can be used in view of its specification, price, form, and discontinuation. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., in view of a part's specification, price, form, and discontinuation) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The claims simply recite a parts list and not the management of parts in view of its specification, price, etc.

Applicant argues Tamaki is not directed to a system of creating and/or editing structured parts list information. Examiner respectfully disagrees. Tamaki discloses an adjusting means in which superfluous or deficient parts are identified from the parts stock information and parts information and the production planning system including the original parts list is modified accordingly. If there are deficient parts or superfluous parts, the parts list information is adjusted to eliminate the deficient parts as well as superfluous parts. This is equivalent to modifying a structured parts list based on the parts information list. See columns 16-18.

Applicant further argues Tamaki does not teach: (1) a structured parts list information that is retrieved based on input retrieval information and (2) parts information on respective parts corresponding to the retrieved structured parts list information. Examiner disagrees. Tamaki discloses parts list information is generated

by the material resource plan unit for calculating the required amount of material resources based on this list. The production system receives production-planning information including parts list information from the parts acquisition system. See page 6. The updated structural parts list is provided to the production planning system where it is stored in a data storage unit. See page 18, second column.

Applicant argues Tamaki does not disclose creating an additional parts information list based on information in the parts list storages section and parts stock storage section. Examiner disagrees. Applicant's claim recites "create updated structured parts list information based on the parts information list created by the parts information list". Tamaki discloses parts list information is generated by the material resource plan unit for calculating the required amount of material resources based on this list. The production system receives production-planning information including parts list information from the parts acquisition system. See page 6. The updated structural parts list is provided to the production planning system where it is stored in a data storage unit. See page 18, second column. Applicant argues the cited passage in Tamaki does not teach that the updated parts list is created based on (1) the structured parts list information stored in the structured parts list information storage based on the input retrieval information and retrieving (2) the parts information on respective parts corresponding to the retrieved structured parts list information. Tamaki teaches ***"a data storage unit for storing production planning information, parts list information, parts stock information . . .a material resource plan unit for calculating the required amount of material resources based on the production planning***

information and the parts list information stored in the data storage unit. . .a superfluous parts adjusting unit. . ." In order for the production planning system to correctly assess what parts or resources are needed for production, it must make some indication of a production plan (i.e. based on input retrieval). Furthermore the parts information on respective parts is dependent on the parts list information/stock information used to plan the production.

Applicant argues Tamaki does not teach that the adjusting unit adjusts information in the parts list storage section. Tamaki discloses parts list information is generated by the material resource plan unit for calculating the required amount of material resources based on this list. The production system receives production-planning information including parts list information from the parts acquisition system. See page 6. The updated structural parts list is provided to the production planning system where it is stored in a data storage unit. See page 18, second column.

Applicant argues the combination of Tegethoff and Tamaki stating Tegethoff has no relevance to a system such as Tamaki. Tamaki does not teach a compatibility prediction information output device configured to survey on predetermined items (i.e. packaging density, arrangement, and operation verification) based on parts information list created by parts information list creating/editing device and to create and output decision information for compatibility prediction based on results from said survey. Tegethoff, however, teaches a method for manufacturing test simulation in electronic circuit design. Tegethoff teaches a test simulator that simulates a manufacturing text of boards and multichip modules from design concept to aid the designer in selecting

trade-offs in design. The methods models fault probabilities for the circuit design based on the components. Tegethoff further discloses the Manufacturing Test Simulator (MTSIM) which is a concurrent engineering simulation tool for manufacturing test, that is, a tool to predict manufacturing test behavior while a product is still being designed. See column 6. MTSIM uses pareto analysis in which a user can evaluate simulation results to determine faults, test coverage, etc. Pareto analysis can be done at three levels of abstraction including individual components, groups of components with the same part number, and groups of components. All part numbers are assigned a category based on level of integration and functionality. See column 11. Furthermore, Tegethoff teaches that he technology of circuit board assembly is evolving to support density demands of many modern circuit designs. Multi-chip modules and twelve-mil pitch surface mount technology (SMT) are frequently used to improve circuit density. SMT chip packages with lead counts of over 1000 are not uncommon. New fabrication processes are used to enable higher circuit densities usually have higher defect rates than older low density fabrication technologies. Tegethoff teaches identifying defects in packaging densities. See columns 1-4. It would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate Tegethoff's prediction concerning operation, simulation, etc in a system of Tamaki's structured parts list because early prediction of manufacturing behavior drives design changes which optimize the product's manufacturability and testability, thus improving product quality and reducing cost and utilizing a parts list would help facilitate this prediction. See column 6 of Tegethoff.

In response to applicant's argument that Tegethoff is of no relevance whatsoever to Tamaki, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Tegethoff's prediction concerning operation, simulation, etc is relevant in a system of Tamaki's structured parts list because early prediction of manufacturing behavior drives design changes which optimize the product's manufacturability and testability, thus improving product quality and reducing cost and utilizing a parts list would help facilitate this prediction. See column 6 of Tegethoff.

In view of comments above, the rejection is maintained.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rachna Singh whose telephone number is 571-272-4099. Starting in mid-October, the Examiner can be reached at 571-272-4099. The examiner can normally be reached on M-F (8:30AM-6:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Herndon can be reached on 571-272-4136.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RS
08/05/05

William L. Bashore
WILLIAM BASHORE
PRIMARY EXAMINER
8/7/2005